



THE COMMUNICATOR SURREY AMATEUR RADIO CLUB



Volume II

April 2010

Issue XLIV

VE7SAR

VE7RSC

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Surrey Amateur Radio Club

ALWAYS MONITOR 147.36+ (110.9)
OR 443.775+ (110.9 in and out) IRLP 1463

CLUB NET @ 8:00 P.M. Tuesday 147.36+ (110.9)

CLUB MAILING ADDRESS : 239 -7156 121 St. Surrey, B.C. V3W 0J6

**The next meeting of the Surrey Amateur Radio Club will be held at 7:00pm on Wednesday May 12th 2010 at Number Nine Hall Main Building 14901 64th Avenue
Talk in on 147.36+ (110.9) 443.775+ (110.9)**

Minutes of the April 21st SARC Meeting.

Thirty five members and guests who attended SARC's April 21st meeting were welcomed by President, John VA7XB, when the meeting formally commenced at 1930 hr. After introductions all round, a short business meeting preceded the featured presentation. Scott VE7HA gave the Treasurer's report. Club name badges were distributed to those that had ordered them. It was then announced that planning is well underway for an open-air flea market sponsored jointly by

SARC and LARA, to be held on August 22nd at Campbell Valley Regional Park in Langley. Raffle tickets are now available for the event, which will have as prizes a weekend for two at Harrison Hot Springs Resort, a Grundig Globe Traveler G3 Radio and a hands-free Blue Tooth for a cell phone. Thanks were extended to Fred VE7IO for the big task of printing raffle tickets. Anton VE7SSD then gave a report on the Foxhunt and barbeque to be held May 1st at Crescent Park in South Surrey. Those who intend to participate but have not informed Anton were requested to do so asap. Anton expressed thanks to Amel VA7KBA of BC RadioSports for his technical support. Full

information regarding both these events can be found on SARC's website www.ve7sar.net.

The business meeting was followed by an excellent presentation on EME (moonbounce) by Lionel Edwards VE7BQH. Lionel made his first EME contact in 1969 and eventually made DXCC, WAS and WAC all on EME. Lionel showed some photos of large and more modest EME antenna installations around the world, discussed the many losses associated with signal transmission to the moon and back, desirable noise characteristics of the equipment and some typical setups with radios, amplifiers, preamps, feedlines and antennas. He provided a list of sources of information from the web for those who wish to pursue EME. Lionel has graciously offered to make his Powerpoint material as well as this resource list available on SARC's website and to be available as a resource contact. Following a question and answer period after the presentation, Lionel was thanked for sharing his knowledge with the group and was given a bottle of wine as a token of appreciation from the audience. The meeting then concluded at 2100.

Lionel Edwards VE7BQH



President John Brodie thanking Lionel for an interesting presentation.



For more information on EME go to the SARC website www.ve7sar.net and follow the links

President's Message



NEXT MEETING OF SARC IS MAY 12TH. Our guest

speaker is President of the Delta Amateur Radio Society, **Gord Dick VE7FKY/**

VA7GJ, on the topic of **D-Star digital**

voice. Gord has been one of the biggest advocates of D-Star locally, and the one we go to for technical advice. He is that familiar and friendly host and co-founder of the BC-SF and Cross Canada Nets.

His talk will address:

- a) A history of how we got to where we are today
- b) How to program a D-Star radio, and
- c) D-RATS for emergency and fun.

There will be a live demonstration with others in the field, and opportunity to ask questions about your own particular situation.

PLEASE NOTE THAT THE MEETING VENUE HAS BEEN CHANGED...IT WILL BE IN THE MEETING ROOM AT NO. 9 FIREHALL ITSELF, 14901 64th Ave., SURREY - **NOT THE TRAINING CENTRE**.

The **August 22nd Flea Market** (in joint venture with Langley ARA) will be SARC's one-and-only fund raiser for the year. See the full notice elsewhere in the Communicator and also on SARC's website. We hope that this event will replenish our financial resources, which have been significantly drawn down as a result of some big project expenditures throughout 2009/10. The raffle conducted in connection with the flea market is expected to be a big attraction, but between the Langley and Surrey clubs, we have 2500 tickets to sell if we wish to maximize the profit from this event. The total value of prizes (door prizes and raffle) total around \$1000, including the

weekend for two at Harrison Hot Springs Resort. To break even we need to sell 500 tickets. So we are asking each SARC member to commit to selling at least two books of 10 and, if possible, even more. The prizes are excellent and tickets at \$2 are attractively priced. Please see **Bill Little VA7ZBL** to get your tickets. A lot of work has gone into the planning, with the expectation it will attract a large number of buyers and sellers from the amateur community. Please, get out there and do your part to help the organizers make this event profitable, so that SARC can continue to undertake worthwhile projects and activities for our members and the community. I would be remiss if I did not extend a big thanks to **Fred Orsetti VE7IO** for the professional raffle ticket printing job.

Over two Thursday evenings in April, three members of SARC traveled to Coquitlam to participate in a "**Radio Mobile**" workshop given by **Ian Procyk VE7HHS** of Coquitlam Amateur Radio Emergency Services Society (CARESS). Radio Mobile is a sophisticated modeling program that predicts RF propagation displayed on impressive maps of the user's choosing under a wide variety of conditions. For example, it can show on a map of the Lower Mainland using digital terrain information overlaid with contours and street maps, what areas could expect good signals from a repeater and where reception would be limited or absent. Parameters of the transmitter (antenna type, gain, height, feedline losses, power, etc.) and similar characteristics of the receiving station are entered and can be easily changed for "what if" simulations of specific paths. Cross sections showing "Fresnel" beams versus topography can display path obstructions and results, along with key numerical data for signal strength and losses etc. The resulting propagation pattern over a wide area can also be superimposed on Google Earth air photos and maps. With the time available for the workshop, only some of the capabilities of

this powerful software could be explored, but the basic concepts were demonstrated and we all came away very impressed with its capabilities. Armed with that experience, we intend to see what Radio Mobile tells us about VHF and UHF propagation from the existing Surrey repeaters. After that the next step will be to see what changes might be possible to bring about improvement to poor coverage areas. If you wish to explore this software yourself, you can obtain a free download at <http://www.cplus.org/rmw/english1.html>. With some experimentation, you should be able to see its potential and apply it to your own situation. Ian has also provided the following link to a graphical Radio Mobile user guide <http://radiomobile.pe1mew.nl/>. A huge "thankyou" goes out to Ian for a great workshop and sharing this know-how with SARC and other clubs.

Gary Skett VE7AS, in conjunction with the Delta ARS, has organized a beginner's workshop on May 22nd called "**I'm a Ham. What Do I do Now?**" (full details elsewhere, also on website). Hats off to Gary for making happen what many of us have often discussed but never managed to pull together. It should also be mentioned that Gary has recently begun a new series of ham classes and is in the concluding stages of the live CW practice sessions broadcast on 147.360 after SARC's weekly net. These are the kinds of programs that bring new amateurs to the hobby and help our clubs to grow by focusing on the young and beginning hams. We are grateful to Gary for taking the initiative to provide these valuable programs.

Ken Clarke VE7BC is still looking for volunteers to assist with communication at the Hyack International Parade on Saturday May 29th. Please contact Ken at ken-jclarke@shaw.ca if you can help.

Communications person(s)

The Surrey ARC and the Surrey Emergency Program Amateur Radio Society are looking for a person or persons to handle communications with the media. We have a number of events now hosted by amateur radio in Surrey that should receive more publicity events such as Field Day and Canada Day.

The responsibilities would be to provide press releases to the media including photos. This may also require meeting with the press for interviews. The press releases would be sent out in advance of any activity and then a follow-up press release at the conclusion of the event.

If you are interested in this type of volunteer work for you club or emergency organization please contact John Brodie or Fred Orsetti.

The Amateur Radio Olympic project

The 2010 Olympics are just a fond memory now and what a great experience it was. Operators from SARC, SEPARS, other clubs and individuals racked up just under 20,000 Q's using the Olympic calls VG7V, VG7W and VG7G each one was on the air for approximately 2 months.

QSL cards are now printed thanks to the major supporters Icom Canada, HiQ Antennas and SteppIR. Financial support was also provided by Surrey ARC, Burnaby Radio, Coquitlam ARC, North Shore ARC and SEPARS. Personal donations were received from many individuals at the Burnaby Flea Market as well.

QSL cards will now be sent out thanks to the wonderful support from the suppliers and amateur radio operators.

73 Fred Orsetti VE7IO



Surrey Amateur Radio Club

SURREY AMATEUR RADIO CLUB Annual RDF Foxhunt

**Saturday May 1, 2010 at
Crescent Park, South Surrey**

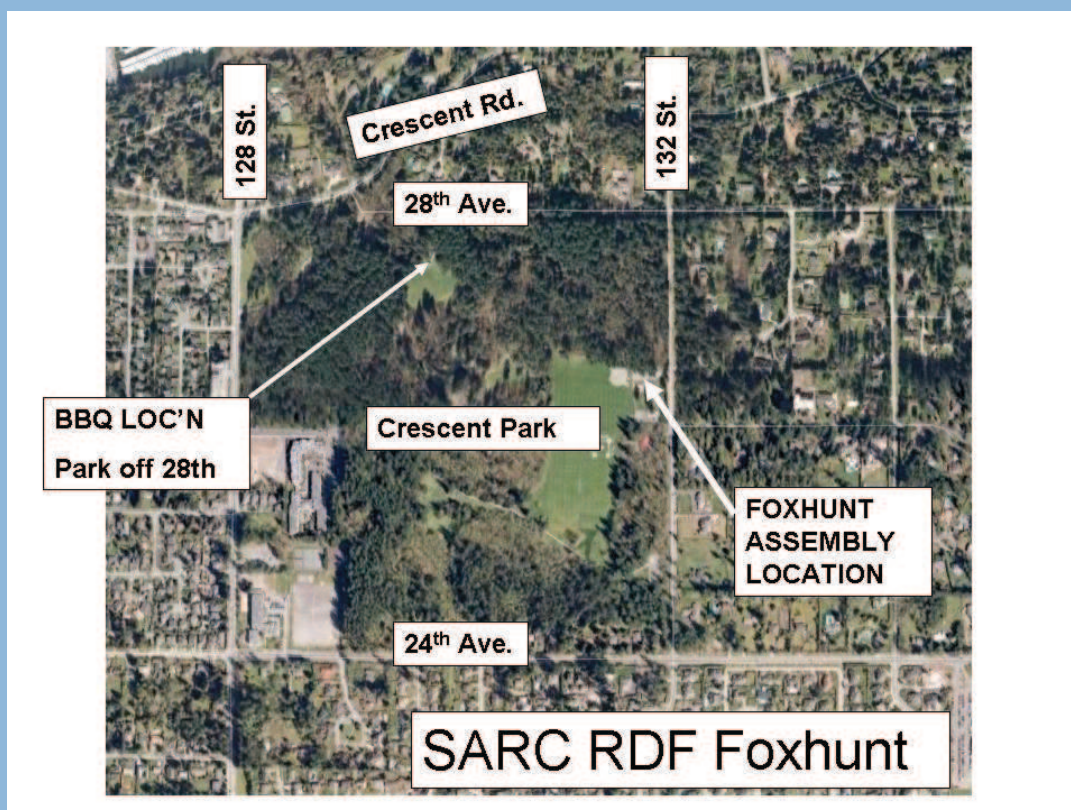
Assembly & Instructions at 0930, Foxhunt commences at 1000

Barbeque (by donation) at 1230

Talk-in 147.360+ (110.9 tone)

All clubs and individuals are welcome, but we ask that you RSVP Anton James
VE7SSD jamesadf@shaw.ca if you plan on attending:

Take Crescent Rd. west from King George Highway near Hwy 99,
then south on 132nd Street to assembly area

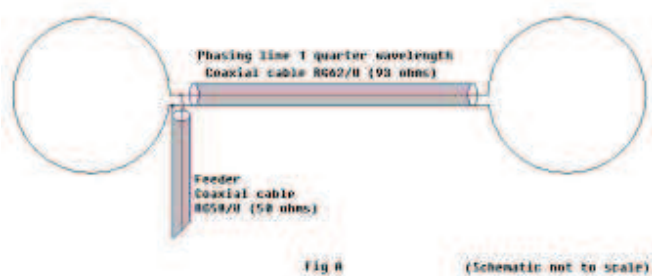




Aerial Adventures 2010

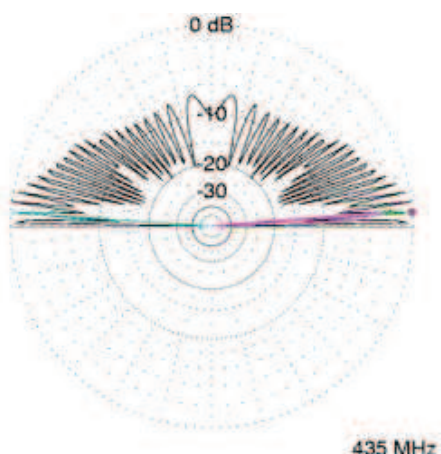
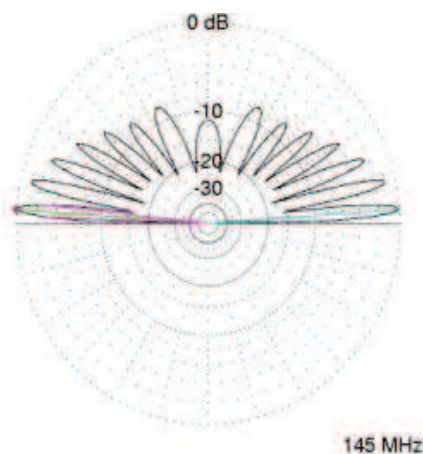
With Gary Skett, VE7AS

As the weather gets a little dryer...well as dry as a Spring in the Lower Mainland can be...it's time to start growing more antennas on your antenna farm. Two projects came to mind recently, a pair of “eggbeater” antennas for satellite work and the other is a variation of our copper cactus J-pole – an aluminum dual-band antenna for your base station. The eggbeater antenna is an omni-directional antenna employing

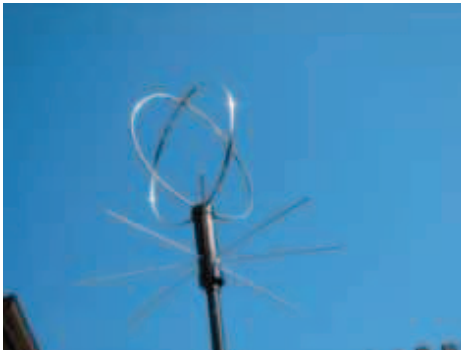


circular polarization to maximize signal capture from low Earth orbit (LEO) satellites. Commercial versions are available from M2 Antennas. The garden-variety home-brew version employs a 90° phasing line to provide a fixed right-hand circular polarization (RHCP). It also uses a pair of parasitic reflector elements to focus more of the

radiation pattern overhead. Parasitic, meaning there is no physical connection to the feed line like in a simple $1/4\lambda$ wave ground plane antenna or other vertical radiator. This effect makes it a “gain” antenna – 1.25dbd, but that gain is at the expense of low-elevation reception. To the horizon it is linear-horizontally polarized. As the pattern rises in elevation, it becomes more and more RHCP. The “free space” pattern is essentially that of a “balloon” shape, like a weather balloon is round, with its energy focused UP toward the ISS and LEO Ham Satellites.



In reality, it isn't that shape at all, but more like these examples to the left.

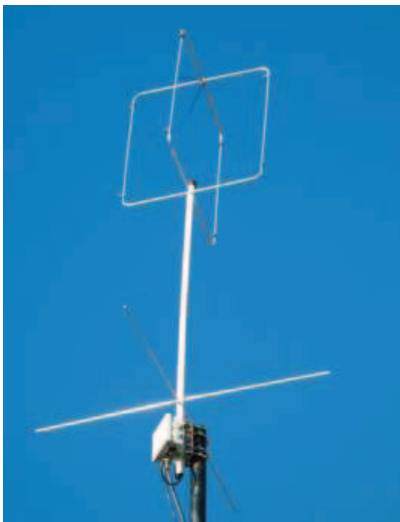


Ron VE7AUZ Homebrew VHF Eggbeater

These antennas also work well enough for terrestrial repeaters, but I don't find them to be all that good for simplex from vehicles and handhelds....those stations are a bit "under the radar" if you understand the meaning. The next antenna project is better for those stations.

As you can see, the loops can be square or round.

Square ones are said to have impedance (Z) closer to 100 ohms – two in parallel give us 50Ω – but I did not find this to be the case. My VHF and UHF round loop antennas gave me a 49.19Ω Z feed point. Close enough for the folks I hang out with. Fed with LMR240 for the VHF and LMR400 for the UHF antenna, and I am as pleased as punch with their overall performance.



Barry VE7GEM Square Eggbeater

Now, let's get down to business and build these beauties...I chose to use available 2mm dia. #10 solid copper wire for my loops, whereas Ron VE7AUZ made his with ½" bendable aluminum flat stock. The aluminum looks more impressive and of course will stand up to the weight of a dozen pigeons nesting on it....the soft copper wire antenna....not so much. ☺

Let's start out with the formula for loops. I'll use metric for the younglings.

VHF Eggbeater Calculation: - Copper 2-mm dia. used for my antenna.

Calculation of the loop length: $300 / F \text{ MHz.} + 4\% \rightarrow 300 / 145 =$

2.0689 meters (round it up to 207 cm.) Therefore $207 \text{ cm} + 8.28 \text{ cm} = 215.28 \text{ cm}$ circumference. As the bandwidth of the antenna is quite

wide, we can round the result up to 216 cm. (We all know that shortening is easier then lengthening something after cutting it.) I found this to be far too long in my situation, but yours will be different!

The phasing line: RG62 A/U quarter wavelength coaxial cable – impedance 93 ohms, calculation: $[(300 / f \text{ (in MHz.)}) / 4] \times \text{coax. velocity factor} \rightarrow (300 / 145) / 4 \text{ then } \times 0.86 \text{ velocity factor} = 44.5 \text{ cm.}$

UHF Eggbeater Calculation: - Copper wire 2-mm dia. used for my antenna.

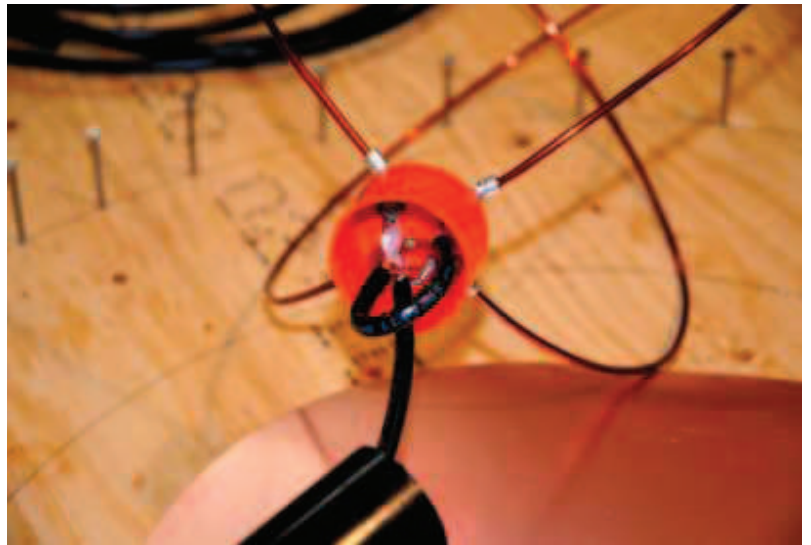
Calculation of the loop length: $300 / F \text{ (in MHz.)} + 10\% \rightarrow 300 / 435 = 0.6896 \text{ meter (say 69 cm.)}$

Therefore $69\text{ cm} + 6.9\text{ cm (the 10\%)} = 75.9\text{ cm}$ (say 76 cm . circumference) Phasing line: RG62 A/U quarter wavelength coax cable – impedance 93 ohms Phasing line calculation: $[(300 / f\text{ MHz.}) / 4] \times$ coax velocity factor $\rightarrow (300 / 435) / 4 \times 0.86\text{ vf} = 14.83\text{ cm}$. BE PRECISE FOR THE PHASING HARNESS.



Gary at his workbench...

Here I am working on making elements for the VHF antenna. The UHF loops are made along with a copper PCB ground plane “disk” under the two loops. This turned out to be not such a great idea as the prototyped



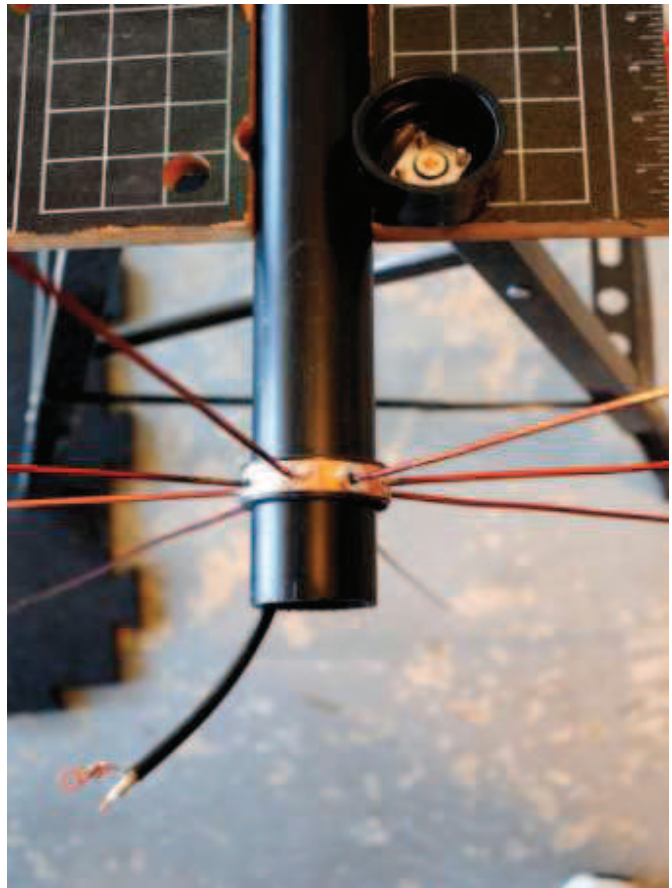
Showing the phasing & coax connections



SS wire screen I initially used....why? The wind my dear Watson....the wind...After a hefty few gusts, the PCB tore off...my solution was to reinforce a new one with a plywood base under it....if that doesn't stay in place...the stainless steel wire mesh screen will have to go back up there....

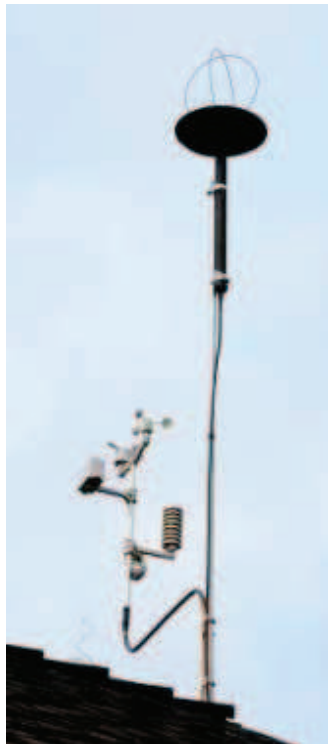
Notice I used my circle form on plywood to form the loops...they turned out to be far too large a diameter for them both, having to trim off 8" off the VHF to get it to resonate in the Ham Band, and only an inch off the UHF loop to make it resonate down in the satellite portion of the 440 MHz. band. (Oops, lost my metric theme... ☺)

A coax jumper was fed down the supporting PVC pipe to a 4-hole SO239 (VHF antenna) connector on an end cap. The parasitic ground radial system had to be movable up and down the pipe to find the lowest SWR and ideal resonant point, so those were inserted into a PVC ring with copper tape to bind all the elements to, and then slide up or down while

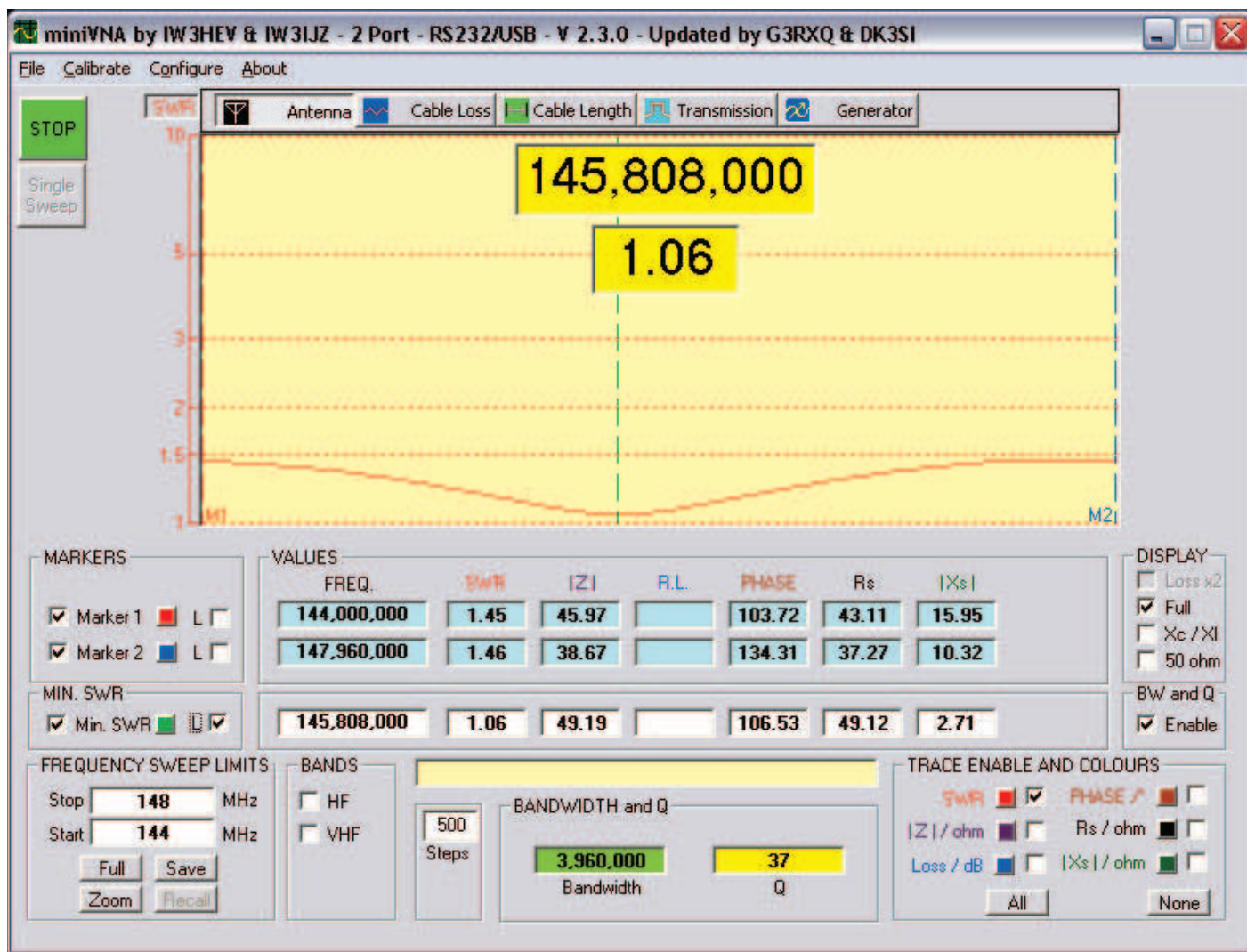


looking at the graph from the MiniVNA. Moving the ground plane changed things a great deal and I found the $1/8\lambda$ calculation to be inaccurate. Where is $1/8\lambda$ below the loops anyway? And where is the reference mark, not the bottom of the loop I found...It was far more practical for both the VHF &

UHF eggbeaters to have something movable and watch for the best point to glue it into place... Shown at the left are the two eggbeaters in place on the roof.



They were painted flat black for weather protection and to make them less obvious to passers-by when they see the antennas with an evergreen tree background...



As you can see from the MiniVNA graph, the VHF antenna resonated at 145.808 MHz. after an hour of trimming and reshaping the loops. I cut a lot off the loops and had to cut the centre support down 2" as well to get the loops to look round again. But the 1.5:1 bandwidth is 144 to 147.960 MHz. the entire 2 metre band...Impedance was 49.19 ohms at resonance with a 1.06:1 SWR, you could not ask for any better than that....It's now ready for my first ISS contact!

Now I know you're saying, Gary you smug bastard....most of us don't have a fancy MiniVNA or a great friend like Egon to lend us one.... So how do you look at an antenna without an analyzer?

Great question....since most analyzers – including the MiniVNA – doesn't work above 170MHz. So let's just use your Bird Model 43 Wattmeter..... *What!?* Don't you at least have the benchmark of RF meters in your shack? No I won't lend you mine! Last Ham I lent it out, you dropped it and it cost me \$300 to get it repaired and calibrated at Bird in the USA....so go to a swap meet and buy your own...it

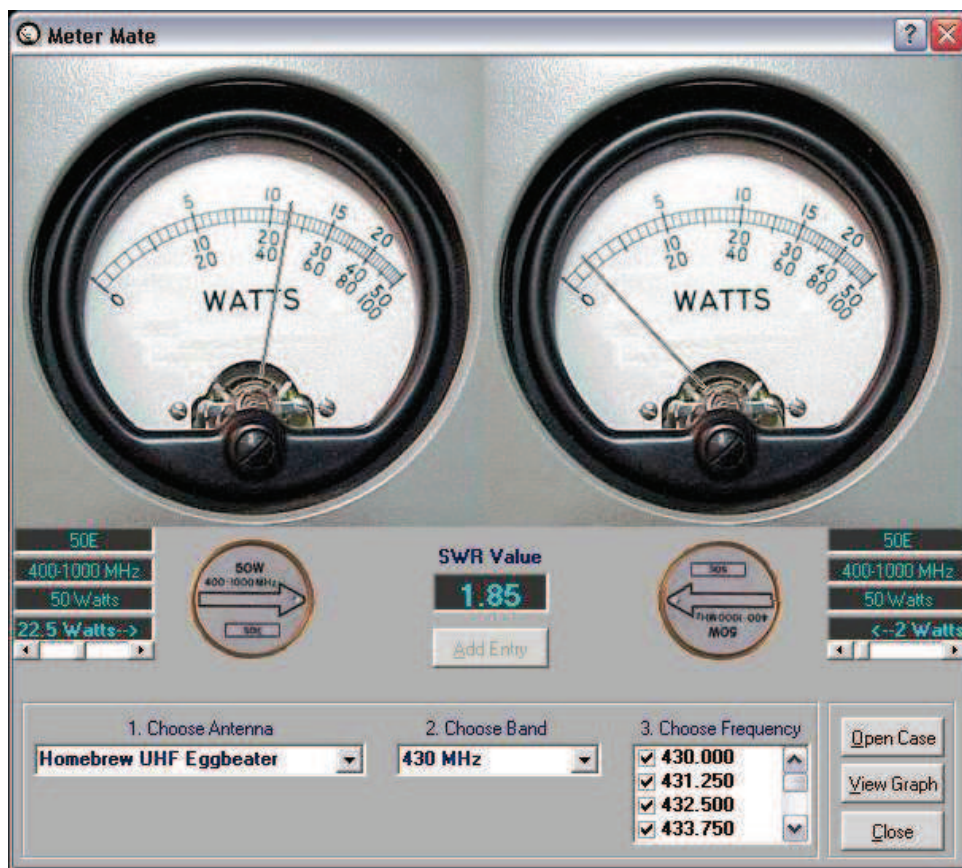
really should be part of every Ham's station. It's a piece of test-gear...like the frequency counters we're supposed to have...until accurate digital read-outs came along....*or are they accurate?*

Then what you need to do is take a forward watt reading, turn the slug and take a reverse watt meter reading and record the two. Do it at regular intervals as you scan your VFO or channelized UHF radio from one end of the band to the top – 430 to 450 MHz. A free program like KD4UDY's Meter Mate is perfect for the task. Otherwise you'll be doing the SWR formula by hand...or in Excel (which also does your graphing...) <http://software-by-kd4udy.software.informer.com/> if you're interested. So the screen shot below indicates the eggbeater is showing a 1.85:1 SWR as I go through 430 to 440 MHz. That's a result of having about 23 watts output and seeing 2 watts coming back. Not great, but as I recall, there was a dip somewhere that was marginally better...but after an hour of playing with the ground plate and the loop...I

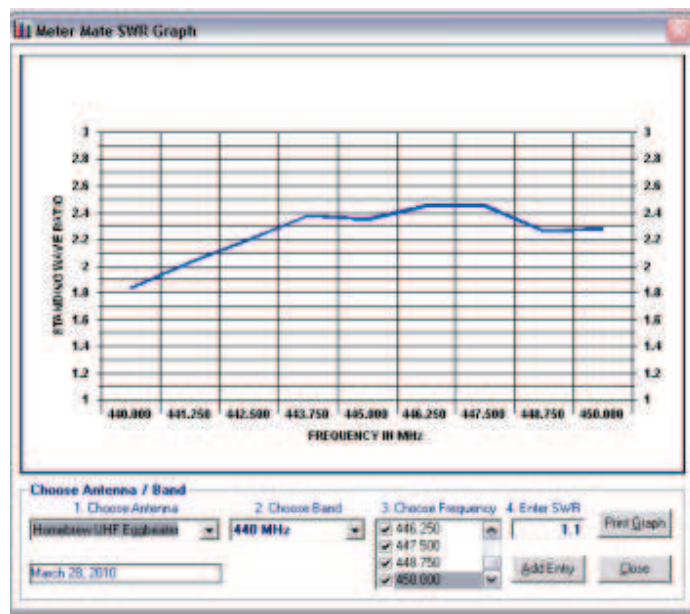
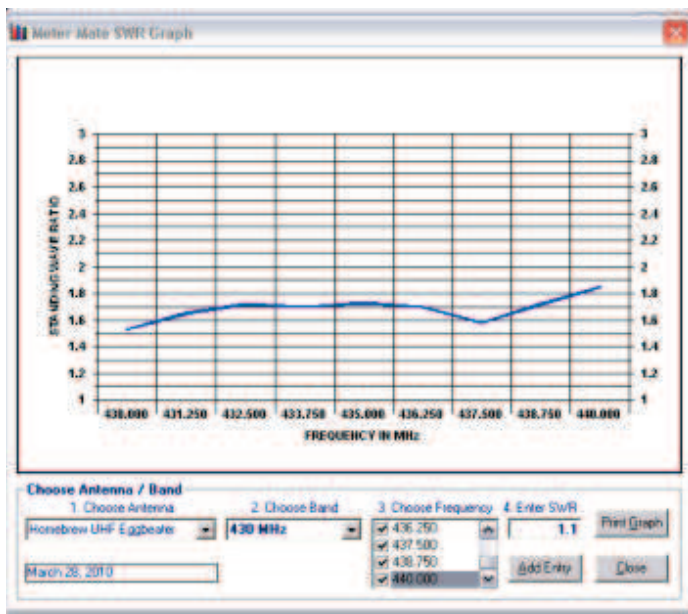
decided to just leave it alone.

Although I watched the watt meter as I was moving the disk up and down the PVC pipe under the loops, the SWR was never that great throughout the band. So I can only surmise the phasing line wasn't accurate enough and I stopped too soon when I was trimming the loop circumference.

I was going to give you the formula to calculate SWR from the two power measurements, but SWR is



a very complex calculation taking into account a number of factors...a most intimidating algebraic expression. If you Google SWR you'll find on-line calculators that are a heck of a lot easier to use. Even taking that formula into Excel is an advanced exercise to get the true VSWR or ISWR reading, and then there is the graphing...so thus the use of this nice little Meter Mate program.



The Meter Mate's graph on the left is from 430 to 440 MHz. It shows a resonant point at 437.500 with and SWR of 1.58:1. OK....well except at 430 MHz. it measured 1.52:1. So the loop was still too long...I should have cut off another inch [or maybe two] before soldering everything in place...I thought I could bring it down by adjusting the ground plane disk....nope...didn't work.

The graph on the right goes from 440 to 450...and it's basically not practical to use it up there. The SWR starts and 1.8:1 and climbs to 2.5:1....ok for HF perhaps, but not for UHF. If I make a second one – if the wind destroys the present model – then I'm going to use different material and make the circumference smaller. But it's up and working...in the portion of the band where most of the satellite

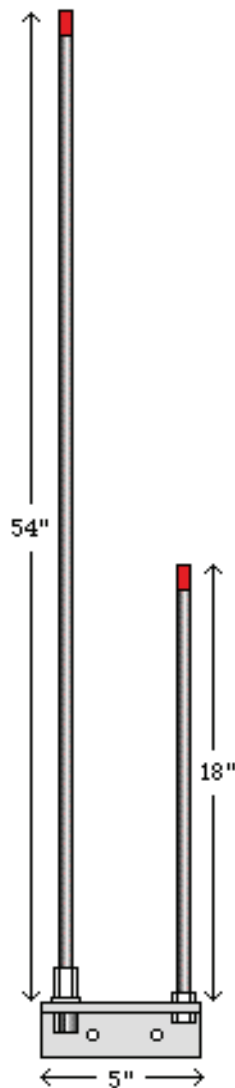
downlinks are...and I can hear them....



My goal...this coveted QSL card after I make contact with a crew member with my FT-736R and my two homebrew eggbeater antennas...

This next antenna takes about an hour to make and costs under \$20 for new materials. If you can tap and cut your own threads, use 24tpi for the driven element so it fits into the antenna/coax connector and 16tpi for the other one or two parasitic elements.

J - VHF



Covers 150 -162 MHz.
With an VSWR of less than 1.5 - 1

Model

Simply the Best

Does NOT require a ground plane.

Mount on a metal mast

Ideal for mounting in an attic,
On a roof vent pipe, (up to 1 1/2")
On a wooden or Fiberglass pole,
On Fiberglass or Plastic Vehicles,
(Motorhomes, Trucks, **Boats**)
Mount it just about anywhere.

Low SWR - Wide Bandwidth

Has Gain over a 1/4 wave .

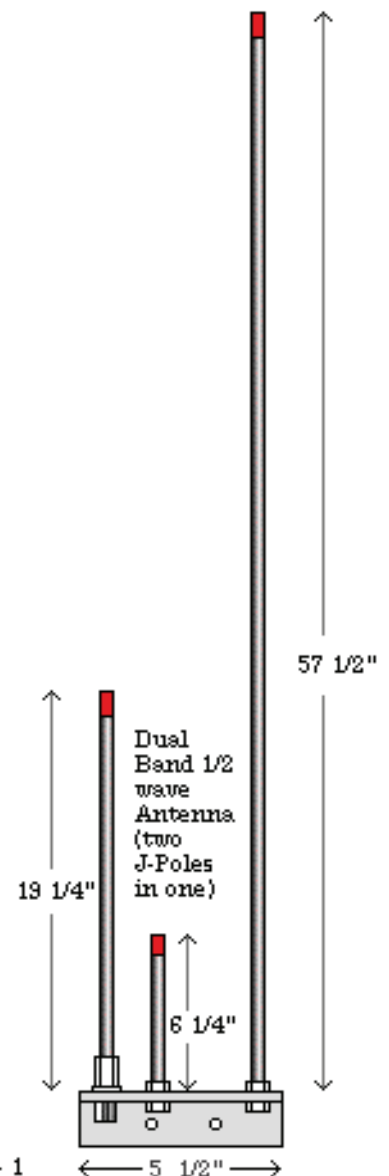
Omni-Directional.

This is a very Heavy Duty Antenna.
The Elements are made from 3/8"
Solid Round Aluminum with a Heavy
Duty Angle Mounting Bracket.

Mounting Hardware for
mast up to 1 1/2" Included.

Single SO239
Feed Connector

J146/440



Covers 143-149 MHz. VHF
Covers 437-450 MHz. UHF
With an VSWR of less than 1.5 - 1

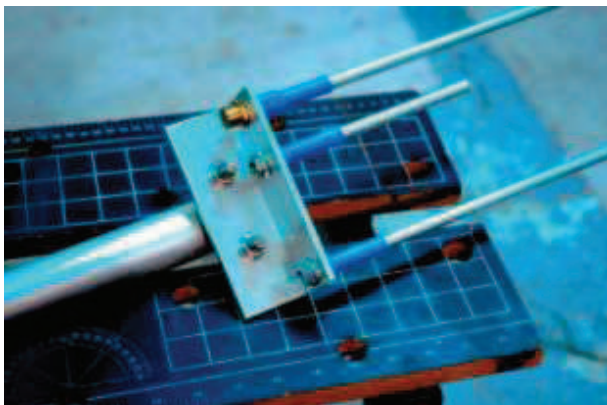


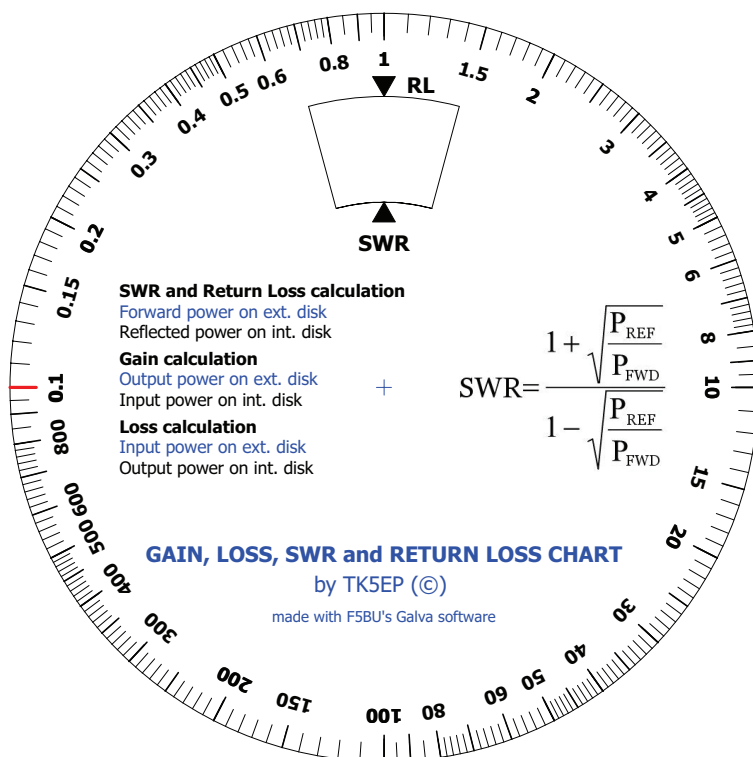
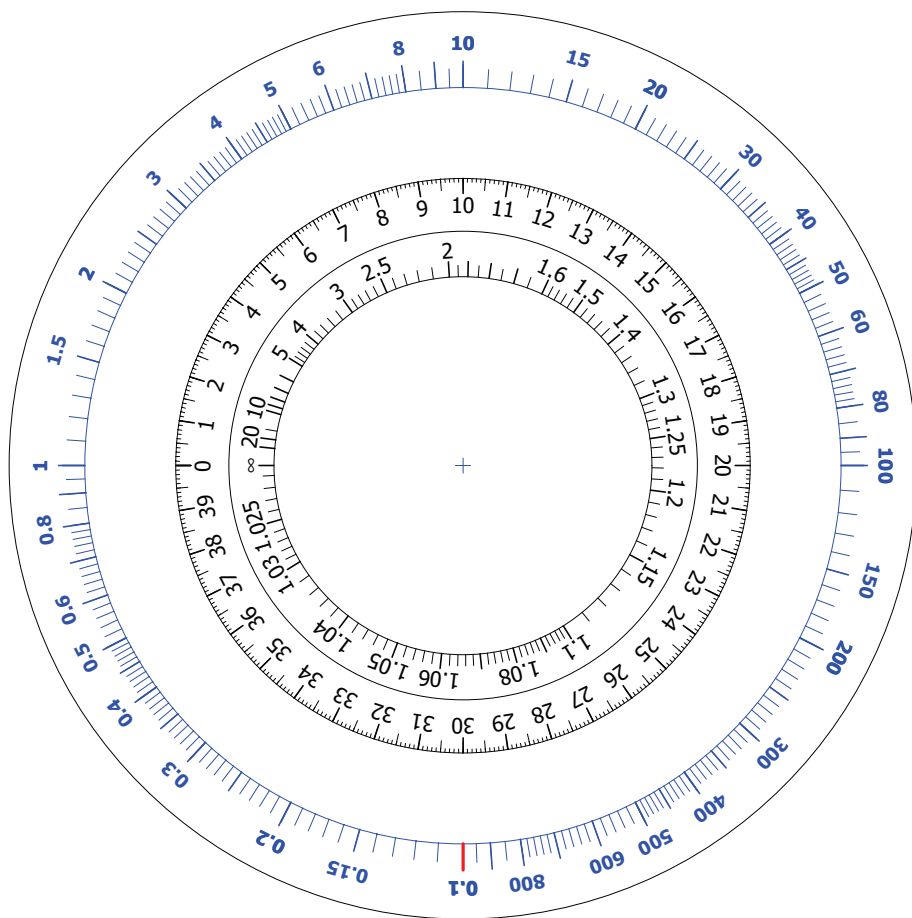
Photo of the finish project. Glue-lined heat shrink on the bottom of each element protects the nuts and connections. Don't forget to add your aluminum anti-oxidant to all the threads before you [carefully] tightened the elements down to the angle bracket base.



As you can see from the screen shot, this antenna is basically flat across the entire 2 metre Ham band. The designer says less than 1.5:1 and it appears to be less the 1.25:1 across the band. Measurements for the UHF portion – using my Bird Model 43 Wattmeter – indicate the same characteristic for 440 to 450 Mhz. If I were to make adjustments to the measurements on the diagram, I'm sure I could get the SWR down to almost 1.2:1, but does it matter....not at all. Many commercial antennas don't offer this kind of bandwidth or SWR measurements...



Gary, what happens if I make the driven element too short? Or what if the resonant frequency is a little too high? What do I do? Good question newbie Ham person! You carefully drill and tap the driven rod for a 10-24 or 12-24 stainless steel machine screw. [12-24 is hard to find in Canada] Simply watch your MiniVNA or wattmeter while you turn the screw in or out for best SWR...then tighten the nut to hold the screw in place. Don't forget your anti-oxidant and maybe cap this afterwards.



**BASIC HAM
RADIO
COURSE!**

**Get your BASIC
Amateur "HAM"
Radio License in less
than a month!**

**Classes start Friday April
23rd and run for 4 Friday
evenings and two
Saturdays.**

**Cost \$100 for everything,
including the exam and a 1-year
membership to the club of your
choice.**

Classes:

**Friday April 23, 30th, May 7th & 14th
6:30 to 10 p.m.**

Exam on May 14th.

Saturday, May 1 & 8th 9:30 am - 5 pm

**Classroom at the Township of
Langley Fire Hall #6**

NEIGHBOURHOOD: Murrayville
ADDRESS: 22170 - 50th Avenue, just
east of the Langley Hospital off of the
Fraser Highway.

***For more information and to register,
contact Gary with an e-mail to ve7as@rac.ca***



Facilitator: Gary Skett, VE7AS.

I'm a HAM! What do I do now?

Saturday May 22nd – 0930 to 1300. Sponsor: Delta Amateur Radio Club.

Place: North Delta Public Safety Building 11375 84th Avenue

Free Parking – Use the large lot behind the buildings that adjoin the Rec. Centre.

The purpose of this ½ day Seminar is to provide new Hams with the answer to the question; What do I do now that I have my license? My basic goal is to kick start you on your way to establishing a station and getting you actively involved in your new life style. With that in mind we'll start by discussing the following FAQ's... But of course I hope to be able to answer as many of your specific concerns as time will allow.

- 1) *What's in it for me?* We go over all the aspects of the hobby, what you can participate in, what modes are available, what specific equipment you need and what you can expect to invest into the hobby.
- 2) *How to set up your first Ham Station.* Depending on #1, what or how to buy, where to buy, what basic components are required, how to select an antenna or antennas, cable, computers, accessories and more!
- 3) *What do all the dials, buttons, switches, knobs and menus do?* We'll talk about the latest "DC to Daylight" All-band, all-mode, all-confusing expensive radios and how to get enough for less...We'll actually pick a couple of HF radios and go through what each "feature" does and why you need it or not. Again it depends on your epiphany during topic #1...
- 4) *What is a repeater, the IRLP, Echolink, D-star?* What are Nets? What radio bands do I use and why?
- 5) *Station Operating Etiquette.* What is expected on HF & VHF QSO's [conversations], during an emergency or in contests. The differences between operating above 50Mhz [FM] and the other bands.
- 6) *General Q&A session followed by live demos with Delta Club's HF station and/or outdoors with a portable setup on HF, and some demos of club members' vehicle installations, repeater conversations, some grab & go examples. BRING A NOTEPAD AND YOUR LIST OF QUESTIONS!*

Please be aware that I cannot get into "how to program your radio" with this seminar...this is a subject and seminar all unto itself and may best be handled by the Club's Elmer's....however if the numbers justify this, I will coordinate another ½ day to this subject alone.

To register for this seminar send an email to Gord Dick of the Delta Club at gi@deltaamateurradio.com and cc to me at ve7as@rac.ca Gord or I will email you if anything changes. If you can't make this one, there may be other opportunities through the Surrey, Langley, White Rock, Abbotsford or Chilliwack clubs...talk to your program directors to see if they have arranged for a seminar.... SEE YOU THERE! Gary, VE7AS.

CAMPBELL VALLEY REGIONAL PARK, LANGLEY, BC
SUNDAY AUGUST 22, 2010
10 AM -2 PM (8:30 AM SETUP FOR VENDORS)

OPEN AIR AMATEUR RADIO FLEA MARKET

CO-SPONSORED BY

**LANGLEY AMATEUR
RADIO ASSOCIATION**
www.langleyamateurradio.com/



**SURREY AMATEUR
RADIO CLUB**
www.ve7sar.net



FOR MORE
INFORMATION OR
TO RESERVE YOUR
TABLE OR
TAILGATE SPOT

contact

Stan Brown VE7YSB

Phone: 604-534-8256 or

604-574-5060

e-mail: sabcostan@shaw.ca

This is an open-air flea market with circus-style tents for under cover table sales plus outside area for direct-from-vehicle sales, all in a rural park setting.

Buying and selling of used and new amateur radio items and electronics, with commercial exhibits, RAC table, and QSL bureau. Door prizes and raffle prizes total value \$1000. Raffle* 1st prize is weekend for 2 at Harrison Hot Springs Resort; 2nd prize is Grundig Globe Traveler G3 Radio; 3rd prize is hands-free Blue Tooth for your cell phone. Food and refreshments available.

Prepayment will ensure your table or tailgate reservation.

\$20 for table under circus-style tent (includes vendor's admission);
\$15 for vehicle and tailgate vendors (bring your own table & chairs);
\$5 admission for buyers.

To get to Campbell Valley Regional Park...

Proceed south on 200th Street, then east on 8th Ave. to south park entrance and watch for signs to parking area.

For travelers from the US: from Hwy 99 (Peace Arch Border crossing) or 176th Street (Pacific Border crossing), take 8th Avenue exit and continue east as described above.

Overnighters can reserve at Hazelmere RV Park and Campground which is at 18843 8th Avenue. Toll free: 877-501-5007 or email: camping@hazelmere.ca

Bring your handi-talki radio – due to the large size of our venue, all announcements will be made by PA and broadcast on 146.780- no tone.



*Chance to win depends on number tickets sold—only 2500 tickets available
Gaming Event License #23685

Problem Gambling Help Line
1-888-795-6111
www.bcreponsiblegambling.ca

**Know your
limit, play
within it.**

19+ to play!